

REMARKS

This response cancels claims 1-37 and adds new claims 38-52.

Support for the new claims can be found, e.g., at pages 7-18 and Figs. 9, 11A-14 of the application. Upon amendment, the present application will have 15 claims (claims 38-52) and 1 independent claim (claim 38). Thus, no official fee for excess claims is necessary.

In section 2 of the Office Action, the Examiner rejects claims 1-5, 7-9, 11, 12, 14-17, 18-20, 22, 24, 26, 28-30, 32-35 and 37 under 35 USC 102(e) as being anticipated by Yu (US Patent No. 6,476,422). Moreover, in section 4, claims 6, 21 and 27 are rejected under 35 USC 103(a) as being unpatentable over Yu in view of Liu et al. (US Patent No. 6,455,898); in section 5, claims 10, 13, 25, 31 and 36 are rejected under 35 USC 103(a) as being unpatentable over Yu 422 in view of Yu (US Patent No. 5,869,873). These rejections are now moot. The Applicant believes that the pending claims 38-52 are patentable over the cited references.

Yu '422, Liu, and Yu '873, standing alone or in combination, does not disclose, teach, or suggest, *inter alia*, the following features recited by claim 38 of the present application:

"a first doping region having said first conductivity type, electrically coupled to said node"; and "a second doping region having said second conductivity type, disposed on said substrate and electrically floated on said substrate".

None of the cited references (Yu '422, Liu, and Yu '873) teaches or

suggests both a BJT and a second doping region, wherein the emitter and base of the BJT are electrically coupled to a node, and the second doping region is floated in the collector region of the BJT.

Yu '422 discloses an ESD protection circuit with SCR characteristics to improve its trigger current for avoiding undesired latch-up phenomena. Yu '422 nowhere teaches a doping region **floated in the collector region** of the BJT, as recited by claim 38 of the present application. In FIG. 7 of Yu '422, an electrostatic discharge protection circuit is electrically coupled to a node (46) and a reference potential (ground) for dissipating the electrostatic voltage formed at said node. It includes a second doping region (N+ doping region 38) and a BJT composed of a collector region (P substrate 30), an emitter (P+ doping region 36) and a base (N well 32). **The emitter (36) is floated in the N well 32 and the second doping region (38) is electrically coupled to the reference potential (ground).**

In FIG. 5 of Yu '873, an electrostatic discharge protection circuit is electrically coupled to a node (1) and a reference potential (Vss) for dissipating the electrostatic voltage formed at said node. It includes a second doping region (N+ doping region 54) and a BJT composed of a collector region (P-SUB), an emitter (P+ doping region 52) and a base (N well 51). The emitter (52) and base (51) are electrically coupled to the node (1), and **the second doping region (54) is electrically coupled to the reference potential (Vss).**

However, in the new claim 38, an electrostatic discharge protection circuit includes **a well region (base) and first doping region (emitter)**

both electrically coupled to a node, and a second doping region electrically floated on a substrate (collector region).

Liu discloses an ESD protection structure having a primary protection device, a secondary protection device and a substrate pickup. Liu's structure is very different from that of the present application and there is nothing similar to the above-quoted features of claim 38.

Due to the reasons stated above, the Applicant believes that claim 38 is patentable. Claims 39-52 are also patentable, at least by virtue of their dependency from claim 38.

The Applicant thus believes that all pending claims are in condition for allowance and reconsideration of the present application is respectfully requested.

The Commissioner is authorized to charge any additional fees which may be required or credit overpayment to deposit account No. 12-0415. In particular, if this response is not timely filed, then the Commissioner is authorized to treat this response as including a petition to extend the time period pursuant to 37 CFR 1.136 (a) requesting an extension of time of the number of months necessary to make this response timely filed and the petition fee due in connection therewith may be charged to deposit account no. 12-0415.

Enclosed please find a copy of Troy Guangyu Cai's Notice of Limited Recognition under 35 CFR 10.9(b) to prepare and prosecute patent

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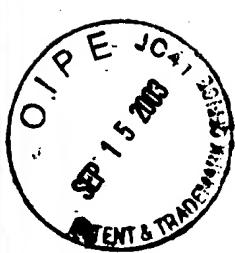
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